



June 30, 2011

Duke Energy
Miami Fort Generating Station
11021 Brower Road
North Bend, OH 45052

Attention: Ms. Tara Thomas
Environmental Coordinator

Re: Results – **June 2011**
Low-Level Mercury Sampling
Miami Fort Generating Station
North Bend, Ohio

In accordance with your request, URS prepared the following letter report transmitting low-level mercury test results for samples collected at the Miami Fort Generating Station located in North Bend, Ohio.

The scope of work involved the sampling of intake and discharge waters from the following sources and analysis of those samples for low-level mercury.

1. River Intake
2. Station 601 (WWT Influent)
[Samples were collected at this station one detention time before samples collected at Outfall 608]
3. Outfall 608 (WWT Effluent)
[Samples were collected at this outfall one detention time after samples collected at station 601]
4. Outfall 002 (Pond B Discharge)

Each sample was collected following the required Method 1669: *Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria Levels* (Sampling Method) and analyzed by Method 1631. At the request of Duke Energy, total metal mercury samples were collected from Station 601 and analyzed by Method 7470A. Also at the request of Duke Energy, a dissolved low-level mercury sample was collected by Method 1669 from Outfall 608 and analyzed by Method 1631. The collected dissolved sample was filtered at the laboratory utilizing 0.45 micron filtration.

Field staff from URS' Cincinnati office conducted the sampling and TestAmerica Laboratories Inc. located in North Canton, Ohio performed the analytical procedures. The analytical procedures included the analyses of a collected sample and duplicate sample (duplicates collected at Outfall 608 and Outfall 002), field blank (field blanks collected at the River Intake, Outfall 608, and Outfall 002), and trip blank.



Duke Energy - MFS
June 30, 2011
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The results from the **June 1 and 2, 2011** sampling event are presented in the attached Table 1. A copy of the laboratory report is enclosed with this letter.

--ooOoo--

URS is pleased to provide continued assistance to Duke Energy in the execution of their environmental monitoring requirements. If there are any questions regarding the content of this report, please do not hesitate to contact the undersigned.

Sincerely,

URS Corporation

A handwritten signature in blue ink, appearing to read "Michael A. Wagner", is positioned above the printed name.

Michael A. Wagner
Project Manager

A handwritten signature in blue ink, appearing to read "Dennis P. Connair", is positioned above the printed name.

Dennis P. Connair, C.P.G.
Principal

MAW/DPC/Duke Energy-MFS LL Hg 2011
Job No. 14949813

TABLE 1
ANALYTICAL RESULTS
LOW-LEVEL MERCURY
RIVER INTAKE, STATION 601, OUTFALL 608, AND OUTFALL 002 (POND B)
DUKE ENERGY - MIAMI FORT STATION
NORTH BEND, OHIO

Sample ID	Date Sampled / Results (ng/L, parts per trillion)						
	11/1/10	12/1/10	1/5/11	2/1/11	3/1/11	4/4/11	5/23/11
River Intake	1.1	3.0	9.7	2.1	15.4	<0.50	4.4
Station 601 (7)	408,000	380,000	315,000	88,200	22,500	132,000	UDFS
Station 601 (7)*	350,000	494,000	6,100	7,600	2,500	7,900	UDFS
Station 601 (7)* [duplicate]	378,000	489,000	6,100	Not Collected	4,100	5,900	UDFS
Station 601 (8)	247,000	184,000	UDFS	101,000	38,400	UDFS	150,000
Station 601 (8)*	104,000	490,000	UDFS	4,300	4,700	UDFS	200,000
Station 601 (8)*[duplicate]	Not Collected	Not Collected	UDFS	3,600	Not Collected	UDFS	190,000
Outfall 608	248	345	97.2	428	180	171	20
Outfall 608 [duplicate]	254	333	102	420	191	180	20
Outfall 608 [dissolved, 0.45 micron]	124	81.7	0.91	40.8	3.7	70.6	15
APB-002	2.9	4.0	3.8	5.3	3.7	0.62	2.1
APB-002 [duplicate]	3.0	3.6	3.4	5.0	4.1	1.3	2.2
Field Blank (RI-FB)	<0.50	<0.50	<0.50	<0.50	1.3	<0.50	<0.50
Field Blank (WWT-FB)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Field Blank (AP-FB)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trip Blank	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Samples collected by URS

Samples analyzed by TestAmerica of North Canton, Ohio

UDFS - Unit down for service, no samples collected.

* = Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]

TABLE 1 (continued)

Sample ID	Date Sampled / Results (ng/L, parts per trillion)						
	6/1/11	7/xx/2011	8/xx/2011	9/xx/2011	10/xx/2011	11/xx/2011	12/xx/2011
River Intake	1.5						
Station 601 (7)	UDFS						
Station 601 (7)*	UDFS						
Station 601 (7)* [duplicate]	UDFS						
Station 601 (8)	97,000						
Station 601 (8)*	280,000						
Station 601 (8)*[duplicate]	310,000						
Outfall 608	79						
Outfall 608 [duplicate]	82						
Outfall 608 [dissolved, 0.45 micron]	27						
APB-002	2.5						
APB-002 [duplicate]	<0.50						
Field Blank (RI-FB)	0.63						
Field Blank (WWT-FB)	<0.50						
Field Blank (AP-FB)	<0.50						
Trip Blank	<0.50						

Samples collected by URS

Samples analyzed by TestAmerica of North Canton, Ohio

UDFS - Unit down for service, no samples collected.

* = Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica North Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-696-1

Client Project/Site: Miami Fort Station

For:

Duke Energy Corporation

139 East Fourth Street

ex 510

Cincinnati, Ohio 45202

Attn: Ms. Sue Wallace



Authorized for release by:

06/28/2011 02:29:26 PM

Nathan Pietras

Project Manager II

nathan.pietras@testamericainc.com

Designee for

Denise Pohl

Project Manager II

denise.pohl@testamericainc.com

LINKS

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Qualifiers

Metals

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Case Narrative

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Job ID: 240-696-1

Laboratory: TestAmerica North Canton

Narrative

CASE NARRATIVE

Client: Duke Energy Corporation

Project: Miami Fort Station

Report Number: 240-696-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/03/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 19.0 C.

TOTAL MERCURY

Samples 601 (8) WWT TOT (240-696-4) and 601 (8) WWT TOT DUP (240-696-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/10/2011 and analyzed on 06/15/2011.

Samples 601 (8) WWT TOT (240-696-4)[100X] and 601 (8) WWT TOT DUP (240-696-5)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

LOW LEVEL MERCURY

Samples RI FB (240-696-1), RI (240-696-2), 601 (8) WWT (240-696-3), 608 WWT FB (240-696-6), 608 WWT (240-696-7), 608 WWT DUP (240-696-8), 608 WWT DISS (240-696-9), TRIP BLANK (240-696-10), OUTFALL 002 FB (240-696-11), OUTFALL 002 (240-696-12) and OUTFALL 002 DUP (240-696-13) were analyzed for Low Level Mercury in accordance with EPA Method 1631. The samples were prepared

TestAmerica North Canton

Case Narrative

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Job ID: 240-696-1 (Continued)

Laboratory: TestAmerica North Canton (Continued)

on 06/03/2011 and 06/06/2011 and analyzed on 06/04/2011, 06/07/2011, 06/08/2011 and 06/09/2011.

Mercury failed the recovery criteria high for the MS of sample OUTFALL 002MS (240-696-12) in batch 240-4076.

Refer to the QC report for details.

Samples 601 (8) WWT (240-696-3)[40000X], 608 WWT (240-696-7)[20X], 608 WWT DUP (240-696-8)[20X], 608 WWT DISS (240-696-9) [10X] and OUTFALL 002 (240-696-12)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

Method(s) 1631E: Routine preservation and digestion of samples analyzed by EPA 1631E consists of the addition of 0.2mL bromine monochloride (BrCl) solution. Additional BrCl was required to ensure complete sample oxidation for the following sample(s): 601 (8) WWT. An additional method digestion blank, with like amounts of BrCl, was prepared and analyzed with the samples. The mercury concentration in this additional method blank was 0.6040 ng/L.

Method Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL NC
7470A	Mercury (CVAA)	SW846	TAL NC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-696-1	RI FB	Water	06/01/11 17:25	06/03/11 08:00
240-696-2	RI	Water	06/01/11 17:30	06/03/11 08:00
240-696-3	601 (8) WWT	Water	06/01/11 17:50	06/03/11 08:00
240-696-4	601 (8) WWT TOT	Water	06/01/11 17:55	06/03/11 08:00
240-696-5	601 (8) WWT TOT DUP	Water	06/01/11 18:00	06/03/11 08:00
240-696-6	608 WWT FB	Water	06/02/11 07:45	06/03/11 08:00
240-696-7	608 WWT	Water	06/02/11 07:50	06/03/11 08:00
240-696-8	608 WWT DUP	Water	06/02/11 07:55	06/03/11 08:00
240-696-9	608 WWT DISS	Water	06/02/11 08:00	06/03/11 08:00
240-696-10	TRIP BLANK	Water	06/02/11 00:00	06/03/11 08:00
240-696-11	OUTFALL 002 FB	Water	06/02/11 08:15	06/03/11 08:00
240-696-12	OUTFALL 002	Water	06/02/11 08:20	06/03/11 08:00
240-696-13	OUTFALL 002 DUP	Water	06/02/11 08:25	06/03/11 08:00

Detection Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Client Sample ID: RI FB

Lab Sample ID: 240-696-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.63		0.50		ng/L	1		1631E	Total/NA

Client Sample ID: RI

Lab Sample ID: 240-696-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	1.5		0.50		ng/L	1		1631E	Total/NA

Client Sample ID: 601 (8) WWT

Lab Sample ID: 240-696-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	97000		20000		ng/L	40000		1631E	Total/NA

Client Sample ID: 601 (8) WWT TOT

Lab Sample ID: 240-696-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	280		20		ug/L	100		7470A	Total/NA

Client Sample ID: 601 (8) WWT TOT DUP

Lab Sample ID: 240-696-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	310		20		ug/L	100		7470A	Total/NA

Client Sample ID: 608 WWT FB

Lab Sample ID: 240-696-6

No Detections.

Client Sample ID: 608 WWT

Lab Sample ID: 240-696-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	79		10		ng/L	20		1631E	Total/NA

Client Sample ID: 608 WWT DUP

Lab Sample ID: 240-696-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	82		10		ng/L	20		1631E	Total/NA

Client Sample ID: 608 WWT DISS

Lab Sample ID: 240-696-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	27		5.0		ng/L	10		1631E	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-696-10

No Detections.

Client Sample ID: OUTFALL 002 FB

Lab Sample ID: 240-696-11

No Detections.

Client Sample ID: OUTFALL 002

Lab Sample ID: 240-696-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	2.5		1.0		ng/L	2		1631E	Total/NA

TestAmerica North Canton

Detection Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-696-13

No Detections.

1

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Client Sample Results

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Client Sample ID: RI FB

Date Collected: 06/01/11 17:25

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-1

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.63		0.50		ng/L		06/06/11 06:00	06/07/11 17:31	1

Client Sample ID: RI

Date Collected: 06/01/11 17:30

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-2

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.5		0.50		ng/L		06/06/11 06:00	06/08/11 06:52	1

Client Sample ID: 601 (8) WWT

Date Collected: 06/01/11 17:50

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-3

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	97000		20000		ng/L		06/06/11 06:00	06/08/11 07:01	40000

Client Sample ID: 601 (8) WWT TOT

Date Collected: 06/01/11 17:55

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-4

Matrix: Water

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	280		20		ug/L		06/10/11 14:10	06/15/11 14:08	100

Client Sample ID: 601 (8) WWT TOT DUP

Date Collected: 06/01/11 18:00

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-5

Matrix: Water

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	310		20		ug/L		06/10/11 14:10	06/15/11 14:09	100

Client Sample ID: 608 WWT FB

Date Collected: 06/02/11 07:45

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-6

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		06/06/11 06:00	06/07/11 17:56	1

Client Sample ID: 608 WWT

Date Collected: 06/02/11 07:50

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-7

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	79		10		ng/L		06/06/11 06:00	06/07/11 18:05	20

Client Sample Results

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Client Sample ID: 608 WWT DUP

Lab Sample ID: 240-696-8

Date Collected: 06/02/11 07:55

Matrix: Water

Date Received: 06/03/11 08:00

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	82		10		ng/L		06/06/11 06:00	06/07/11 18:14	20

Client Sample ID: 608 WWT DISS

Lab Sample ID: 240-696-9

Date Collected: 06/02/11 08:00

Matrix: Water

Date Received: 06/03/11 08:00

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	27		5.0		ng/L		06/03/11 14:22	06/04/11 12:08	10

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-696-10

Date Collected: 06/02/11 00:00

Matrix: Water

Date Received: 06/03/11 08:00

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		06/06/11 06:00	06/07/11 18:22	1

Client Sample ID: OUTFALL 002 FB

Lab Sample ID: 240-696-11

Date Collected: 06/02/11 08:15

Matrix: Water

Date Received: 06/03/11 08:00

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		06/06/11 06:00	06/07/11 18:31	1

Client Sample ID: OUTFALL 002

Lab Sample ID: 240-696-12

Date Collected: 06/02/11 08:20

Matrix: Water

Date Received: 06/03/11 08:00

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.5		1.0		ng/L		06/06/11 06:00	06/09/11 11:54	2

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-696-13

Date Collected: 06/02/11 08:25

Matrix: Water

Date Received: 06/03/11 08:00

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		06/06/11 06:00	06/08/11 07:09	1

QC Sample Results

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 240-2752/1-B

Matrix: Water

Analysis Batch: 3766

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2628

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		05/25/11 08:50	06/04/11 10:51	1

Lab Sample ID: LCS 240-2628/8-A

Matrix: Water

Analysis Batch: 3766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2628

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Mercury	5.00	4.98		ng/L		100	77 - 125

Lab Sample ID: MB 240-3550/1-B

Matrix: Water

Analysis Batch: 3766

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3550

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		06/03/11 14:22	06/04/11 11:59	1

Lab Sample ID: MB 240-3722/1-A

Matrix: Water

Analysis Batch: 4076

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3722

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50		ng/L		06/06/11 06:00	06/08/11 06:10	1

Lab Sample ID: LCS 240-3722/2-A

Matrix: Water

Analysis Batch: 4076

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Mercury	5.00	4.68		ng/L		94	77 - 125

Lab Sample ID: 240-696-12 MS

Matrix: Water

Analysis Batch: 4076

Client Sample ID: OUTFALL 002

Prep Type: Total/NA

Prep Batch: 3722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Mercury	2.5		5.00	13.6	F	ng/L		221	71 - 125

Lab Sample ID: 240-696-12 MSD

Matrix: Water

Analysis Batch: 4076

Client Sample ID: OUTFALL 002

Prep Type: Total/NA

Prep Batch: 3722

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD RPD	Limit
Mercury	2.5		5.00	11.8		ng/L					

QC Sample Results

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-4287/1-A

Matrix: Water

Analysis Batch: 4418

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 4287

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20		ug/L		06/10/11 14:10	06/10/11 18:27	1

Lab Sample ID: LCS 240-4287/2-A

Matrix: Water

Analysis Batch: 4418

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 4287

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Mercury	5.00	5.08		ug/L		102	81 - 123

Lab Sample ID: MRL 240-4808/9-A MRL

Matrix: Water

Analysis Batch: 4948

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 4808

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	% Rec	% Rec. Limits
Mercury	0.200	0.210		ug/L		105	

QC Association Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Metals

Prep Batch: 2628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-2752/1-B	Method Blank	Total/NA	Water	1631E	
LCS 240-2628/8-A	Lab Control Sample	Total/NA	Water	1631E	

Prep Batch: 3550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-3550/1-B	Method Blank	Total/NA	Water	1631E	
240-696-9	608 WWT DISS	Total/NA	Water	1631E	

Prep Batch: 3722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-3722/1-A	Method Blank	Total/NA	Water	1631E	
LCS 240-3722/2-A	Lab Control Sample	Total/NA	Water	1631E	
240-696-1	RI FB	Total/NA	Water	1631E	
240-696-2	RI	Total/NA	Water	1631E	
240-696-3	601 (8) WWT	Total/NA	Water	1631E	
240-696-6	608 WWT FB	Total/NA	Water	1631E	
240-696-7	608 WWT	Total/NA	Water	1631E	
240-696-8	608 WWT DUP	Total/NA	Water	1631E	
240-696-10	TRIP BLANK	Total/NA	Water	1631E	
240-696-11	OUTFALL 002 FB	Total/NA	Water	1631E	
240-696-12	OUTFALL 002	Total/NA	Water	1631E	
240-696-12 MS	OUTFALL 002	Total/NA	Water	1631E	
240-696-12 MSD	OUTFALL 002	Total/NA	Water	1631E	
240-696-13	OUTFALL 002 DUP	Total/NA	Water	1631E	

Analysis Batch: 3766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-2752/1-B	Method Blank	Total/NA	Water	1631E	2628
LCS 240-2628/8-A	Lab Control Sample	Total/NA	Water	1631E	2628
MB 240-3550/1-B	Method Blank	Total/NA	Water	1631E	3550
240-696-9	608 WWT DISS	Total/NA	Water	1631E	3550

Analysis Batch: 4076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-696-6	608 WWT FB	Total/NA	Water	1631E	3722
240-696-7	608 WWT	Total/NA	Water	1631E	3722
240-696-8	608 WWT DUP	Total/NA	Water	1631E	3722
240-696-10	TRIP BLANK	Total/NA	Water	1631E	3722
240-696-11	OUTFALL 002 FB	Total/NA	Water	1631E	3722
240-696-12 MS	OUTFALL 002	Total/NA	Water	1631E	3722
240-696-12 MSD	OUTFALL 002	Total/NA	Water	1631E	3722
MB 240-3722/1-A	Method Blank	Total/NA	Water	1631E	3722
LCS 240-3722/2-A	Lab Control Sample	Total/NA	Water	1631E	3722
240-696-2	RI	Total/NA	Water	1631E	3722
240-696-3	601 (8) WWT	Total/NA	Water	1631E	3722
240-696-13	OUTFALL 002 DUP	Total/NA	Water	1631E	3722

Analysis Batch: 4223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-696-12	OUTFALL 002	Total/NA	Water	1631E	3722

QC Association Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Metals (Continued)

Prep Batch: 4287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-4287/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-4287/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-696-4	601 (8) WWT TOT	Total/NA	Water	7470A	
240-696-5	601 (8) WWT TOT DUP	Total/NA	Water	7470A	

Analysis Batch: 4418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-4287/1-A	Method Blank	Total/NA	Water	7470A	4287
LCS 240-4287/2-A	Lab Control Sample	Total/NA	Water	7470A	4287

Prep Batch: 4808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 240-4808/9-A MRL	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 4948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 240-4808/9-A MRL	Lab Control Sample	Total/NA	Water	7470A	4808
240-696-4	601 (8) WWT TOT	Total/NA	Water	7470A	4287
240-696-5	601 (8) WWT TOT DUP	Total/NA	Water	7470A	4287

Analysis Batch: 5576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-696-1	RI FB	Total/NA	Water	1631E	3722

Lab Chronicle

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Client Sample ID: RI FB

Date Collected: 06/01/11 17:25

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		1	5576	06/07/11 17:31	CJ	TAL NC

Client Sample ID: RI

Date Collected: 06/01/11 17:30

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		1	4076	06/08/11 06:52	CJ	TAL NC

Client Sample ID: 601 (8) WWT

Date Collected: 06/01/11 17:50

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		40000	4076	06/08/11 07:01	CJ	TAL NC

Client Sample ID: 601 (8) WWT TOT

Date Collected: 06/01/11 17:55

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			4287	06/10/11 14:10	LM	TAL NC
Total/NA	Analysis	7470A		100	4948	06/15/11 14:08	BD	TAL NC

Client Sample ID: 601 (8) WWT TOT DUP

Date Collected: 06/01/11 18:00

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			4287	06/10/11 14:10	LM	TAL NC
Total/NA	Analysis	7470A		100	4948	06/15/11 14:09	BD	TAL NC

Client Sample ID: 608 WWT FB

Date Collected: 06/02/11 07:45

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		1	4076	06/07/11 17:56	CJ	TAL NC

Lab Chronicle

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Client Sample ID: 608 WWT

Date Collected: 06/02/11 07:50

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		20	4076	06/07/11 18:05	CJ	TAL NC

Client Sample ID: 608 WWT DUP

Date Collected: 06/02/11 07:55

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		20	4076	06/07/11 18:14	CJ	TAL NC

Client Sample ID: 608 WWT DISS

Date Collected: 06/02/11 08:00

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3550	06/03/11 14:22	CJ	TAL NC
Total/NA	Analysis	1631E		10	3766	06/04/11 12:08	CJ	TAL NC

Client Sample ID: TRIP BLANK

Date Collected: 06/02/11 00:00

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		1	4076	06/07/11 18:22	CJ	TAL NC

Client Sample ID: OUTFALL 002 FB

Date Collected: 06/02/11 08:15

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		1	4076	06/07/11 18:31	CJ	TAL NC

Client Sample ID: OUTFALL 002

Date Collected: 06/02/11 08:20

Date Received: 06/03/11 08:00

Lab Sample ID: 240-696-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		2	4223	06/09/11 11:54	CJ	TAL NC

Lab Chronicle

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-696-13

Date Collected: 06/02/11 08:25

Matrix: Water

Date Received: 06/03/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			3722	06/06/11 06:00	CJ	TAL NC
Total/NA	Analysis	1631E		1	4076	06/08/11 07:09	CJ	TAL NC

Laboratory References:
TAL NC = TestAmerica North Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



Certification Summary

Client: Duke Energy Corporation
Project/Site: Miami Fort Station

TestAmerica Job ID: 240-696-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica North Canton	ACCLASS	DoD ELAP		ADE-1437
TestAmerica North Canton	California	NELAC	9	01144CA
TestAmerica North Canton	Connecticut	State Program	1	PH-0590
TestAmerica North Canton	Florida	NELAC	4	E87225
TestAmerica North Canton	Georgia	Georgia EPD	4	N/A
TestAmerica North Canton	Illinois	NELAC	5	200004
TestAmerica North Canton	Kansas	NELAC	7	E-10336
TestAmerica North Canton	Kentucky	State Program	4	58
TestAmerica North Canton	Minnesota	NELAC	5	039-999-348
TestAmerica North Canton	Nevada	State Program	9	OH-000482008A
TestAmerica North Canton	New Jersey	NELAC	2	OH001
TestAmerica North Canton	New York	NELAC	2	10975
TestAmerica North Canton	New York	NELAC	2	10975
TestAmerica North Canton	Ohio	OVAP	5	CL0024
TestAmerica North Canton	Pennsylvania	NELAC	3	68-00340
TestAmerica North Canton	USDA	USDA		P330-08-00123
TestAmerica North Canton	West Virginia	West Virginia DEP	3	210
TestAmerica North Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Client Contact

Company Name: **DUKE ENERGY** Client Project Manager: **M. WAGNER (URS)** Site Contact: **T. THOMAS** Lab Contact: **COC No. 018195**

Address: **MAWMI PORT STATION** Telephone: **513 651-3440** Telephone: **513 467-4950** Telephone: **1 of 2 COCs**

City/State/Zip: **N. Bend, OH 410** Email: **mike.wagner@urscorp.com** Analysis Turnaround Time (in BUS days): ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

Phone: **513-467-4900** TAT if different from below: **STANDARD**

Project Name: **DUKE ME 2011 LCH** Method of Shipment/Carrier: **Shipping/Tracking No:**

Project Number: **14948 14949813** Shipping/Tracking No: **14948 14949813**

PO #: **14948 14949813** Shipping/Tracking No: **14948 14949813**

Sample Identification	Sample Date	Sample Time	Matrix					Containers & Preservatives					Filtered Sample (Y/N)	Composite C/Grab G	Analyses	Sample Specific Notes / Special Instructions:	
			Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH					Unpres
RI FB	6/1/11	1725	✓														
RI		1730	✓														
#601 (8) WWT		1750	✓														POTENTIALLY ELEVATED Hg LEVELS
601 (8) WWT TOT		1755	✓														
601 (8) WWT TOT DUP		1800	✓														
608 WWT FB	6/2/11	0745	✓														
608 WWT		0750	✓														
608 WWT DUP		0755	✓														
608 WWT DISS		0800	✓														
TRIP BLANK			✓														

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For

Special Instructions/QC Requirements & Comments:

Relinquished by: **[Signature]** Company: **URS CORP** Date/Time: **6-2-11 / 1150** Received by: **[Signature]** Company: **Test America** Date/Time: **6-2-11 / 1150**

Relinquished by: **[Signature]** Company: **Test America** Date/Time: **6-2-11 / 1400** Received by: **[Signature]** Company: **THL** Date/Time: **6-3-11 800**

TestAmerica Cooler Receipt Form/Narrative

North Canton Facility

Lot Number: 696

Client DUKE Project 6-3-11 By: [Signature] (Signature)

Cooler Received on 6-3-11 Opened on 6-3-11

FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ☐

TestAmerica Cooler # 5110 Multiple Coolers ☐ Foam Box ☐ Client Cooler ☐ Other ☐

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐

If YES, Quantity 1 Quantity Unsalvageable ☐

Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐

Were custody seals on the bottle(s)? Yes ☐ No ☒

If YES, are there any exceptions? ☐ Yes ☒ No ☐

2. Shippers' packing slip attached to the cooler(s)? ☐ Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐

3. Did custody papers accompany the sample(s)? Yes ☐ No ☒

4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐

5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other ☐

6. Cooler temperature upon receipt 19.0 °C See back of form for multiple coolers/temps ☐

METHOD: IR ☐ Other ☐

COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☒

7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐

8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐

9. Were sample(s) at the correct pH upon receipt? Yes ☒ No ☐ NA ☐

10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐ NA ☐

11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐

12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐

13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☐ No ☒

Contacted PM Date by via Verbal ☐ Voice Mail ☐ Other ☐

Concerning

14. CHAIN OF CUSTODY

The following discrepancies occurred:

IR high temp ok LHHG and Metals

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in Sample

Receiving to meet recommended pH level(s). Nitric Acid Lot# 100110-HNO₃; Sulfuric Acid Lot# 110410-H₂SO₄; Sodium

Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-

(CH₃COO)₂ZN/NaOH. What time was preservative added to sample(s)?

Client ID	pH	Date	Initials
601	22	6-3-11	[Signature]
601 DUP	22		

1
2
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9
10
11
12
13
14

1
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14

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or printed text on the paper.

Login Sample Receipt Checklist

Client: Duke Energy Corporation

Job Number: 240-696-1

Login Number: 696

List Source: TestAmerica North Canton

List Number: 1

Creator: McFadden, John

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	ELEVATED TEMPS ARE OK FOR LLHG & LIQUID METALS
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	